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Short Communications

Frequency of oral cancer in Babol during 2012-2016

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Abstract

Introduction: Regarding the lack of data on the frequency of oral cancer in Babol, the aim of this study was to evaluate the frequency of oral cancer in Babol during 2012-2016.

Material & Methods: This retrospective cross-sectional study was performed using pathology sheet records of oral cancer patients during 2012-2016. Survival status of patients was collected through telephone contact.

Results: The mean age of 48 patients was 62.2% (22-95) years, and 64.2% were male. Squamous cell carcinoma (SCC) was the most prevalent malignancy, and the most common site was tongue followed by pharynx. Frequency of oral cancer patients was 9 (18.8%), 9 (18.8%), 10 (20.8%), 12 (25%) and 8 (16.7%) patients from 2012 to 2016, respectively.

Conclusion: SCC, specifically on the tongue was the most frequent malignancy. It seems that the oral cancer prevention training is necessary for elderly adults.

Keywords: Oral cancer, Prevalence, Patients

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بررسی فراوانی سرطان دهان در شهرستان بابل طی سال های ۹۱ تا ۹۵

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چکیده

مقدمه: با توجه کمبود اطلاعات درباره فراوانی سرطان دهان در شهرستان بابل، هدف از این مطالعه بررسی فراوانی سرطان دهان در شهرستان بابل طی سالهای ۹۱ تا ۹۵ میباشد.

مواد و روش ها: این مطالعه گذشته نگر توصیفی بر اساس برگه های پاتولوژی بیماران مبتلا به سرطان دهان در شهرستان بابل طی سالهای ۹۱ تا ۹۵ انجام شد. وضعیت حیات بیماران با برقراری تماس تلفنی ثبت شد.

یافته ها: میانگین سنی ۴۸ بیمار مبتلا ۶۲/۲٪ (۲۲-۹۵) سال میباشد و ۶۴/۲ ٪ از بیماران مرد میباشند. SCC شایعترین نوع بدخیمی بود. زبان و بعد حلق شایعترین مکان های ابتلا بودند. ۹ (۱۸/۸٪) بیمار ، ۹ (۱۸/۸٪) بیمار، ۱۰ (۲۰/۸٪) بیمار، ۱۲ (۲۵٪)، ۸ بیمار (۱۶/۷٪) به ترتیب در سال۹۱تا ۹۵ به این بیماری مبتلا شدند.

نتیجه گیری: بیشترین فراوانی بدخیمی SCC در زبان بود. آموزش پیشگیری از سرطان دهان برای بالغین مسن ضروری به نظر می رسد.

واژگان کلیدی: سرطان دهان، فراوانی، بیماران

Introduction

Cancer is the third most common cause of death in Iran. The incidence of cancer in Iran is estimated to be more than 98 per 100,000 women and 110 per 100,000 men.[1] More than 90% of oral cancers are SCC type.[2] The incidence of oral cancer is higher among men and older adults. Almost the age of all patients (98%) with pharynx and oral cancers is over 60. [3] In fact, the incidence of this cancer varies in different parts of the world. Incidence is higher in developing countries than developed countries (about two-thirds of incidence are observed in developing countries) and even, a study has reported that the cancer of the lip and mouth is in the third place after uterine and gastric cancers in developing countries, respectively.[4] In north of Iran, the number of people with cancer is more frequent. [5] Due to the lack of data in Babol, this study aimed to determine the frequency of oral cancer in Babol during 2012-2016.

Materials &Methods

Ethical Committee in Babol University of Medical Sciences approved this study with MUBABOL. REC. 1396.73. In this retrospective cross-sectional descriptive study, the information of patients with oral, lip, and pharynx cancer was collected via the records sent from all pathology centers (University hospitals, private pathology labs and oral pathology lab of dental school in Babol) to the health center in Babol during 2012-2016.

Checklist: The check list served to collect background data comprised of gender, age, place of residence, marital status, job, living status, educational level and behavioral factors including the history of tobacco and alcohol use and the clinical data (the year of the lesion diagnosis, type of malignant histopathology, primary site of the tumor) .

Measures: We collected data through the telephone contact with patient's family; however, failed to contact

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with 17 of them. The place of residence was categorized into rural and urban. Job status was divided into outdoor and indoor jobs. The level of education was classified into three groups: illiterate, under diploma, diploma and higher. Uses of cigarette or hookah were categorized as daily, weekly and monthly while the history of smoking was categorized as less than 5 years or 5 years and more. [6]. Data were analyzed via correlation and Chi-square tests using SPSS 22, and the significance was set as P ≤0.05.

Results

Totally, the records of 48 patients 26 (54.2%) males, 22 (45.8%) females) with oral cancer (during 2012-2016) have existed in Babol Health Center. The mean age was 62.29±16.64 (65.2±16.1 for females, 59.81±16.9 for males) years, ranged from 22 to95. The response rate through telephone contact with the patient's family was 65%, since we failed to contact with 17 patients. The correlation and Chi-square tests revealed no difference between available and missing data regarding age (P=0.1) and gender distribution (P=0.2). All patients had pathology sheet and malignant confirmation, of whom 19 (61%) were survival and 12 (39%) died due to the cancer. The mean age of the dead patients (72.2) was higher than that of living individuals (57.5). Distribution of malignancy in 11 sites is illustrated in table 1. The most common site was tongue followed by pharynx.

Frequency of oral cancer patients was 9 (18.8%), 9 (18.8%), 10 (20.8%), 12 (25%) and 8 (16.7%) patients from 2012 to 2016, respectively. Entirely, 35 patients were married. Totally, 10 (32.3%) patients smoked cigarettes daily, 2 (6.4%) ones smoked hookah monthly, no one used chewing tobacco and 1(3.2%) case consumed alcohol. Type of pathology indicated that the most frequent malignancy was SCC (66.7%) and the least one was verrucous carcinoma (2.1%) (Table 2).

Table1. Distribution of lesion's sites based on malignancy and living status in patients with oral cancer in Babol during 2012-2016

Type of lesion				Living status		
	SCC	Other malignancies	Total	Alive	Dead	Total
Tongue	11(35.5%)	1(6.2%)	12(25.5%)	6(31.6%)	4(33.3%)	10(32.3%)
Mandibular/ Maxillary Ridge	2(6.5%)	0	2(4.3%)	1(5.3%)	0	1(3.2%
Gingiva	2(6.5%)	0	2(4.3%)	1(5.3%)	1(8.3%)	2(6.5%)
Buccal Mucosa	4(12.9%)	1(6.2%)	5(10.6%)	1(5.3%)	1(8.3%)	2(6.5%)
Lip	3(9.7%)	2(12.5%)	5(10.6%)	1(5.3%)	0	1(3.2%)
Parotid gland	0	2(12.5%)	2(4.3%)	0(0%)	1(8.3%)	1(3.2%)
Mandibular gland	0	1(6.2%)	1(2.1%)	0(0%)	1(8.3%)	1(3.2%)
Pharynx	7(22.6%)	4(25.%)	11(23.4%)	6(31.6%)	2(16.2%)	8(25.8%)
Mandible	1(3.2%)	2(12.5%)	3(6.4%)	1(5.3%)	1(8.3%)	2(6.5%)
Oral cavity	1(3.2%)	1(6.2%)	2(4.3%)	1(5.3%)	1(8.3%)	2(6.5%)
Palatal Mucosa	0	2(12.5%)	2(4.3%)	1(5.3%)	0	1(3.2%)
Total	31(100%)	16(100%)	47(100%)	19(100%)	12(100%)	31(100%)

Table 2. Frequency distribution of patients based on the type of malignancy in patients with oral cancer in Babol during 2012-2016

Type of malignancy	N (%)
Unclear	3 (6.3)
Squamous carcinoma	32 (66.7)
Osteosarcoma	2 (4.2)
Lymfoma	3 (6.3)
Adenocarcinoma	3 (6.3)
Basal cell cacinoma	2 (4.2)
Muciepidermoid	2 (4.2)
Verrocous carcinoma	1 (2.1)
Total	48 (100)

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Discussion

The most prevalent malignancy of oral cavity was SCC (67%). Similarly, the prevalence of SCC in other Iranian studies, ranged from 73% to 79%.[6] Proportions of oral cancer among men and women vary in different countries that can be related to the race, culture and habits.[7] Similar to previous reports from different parts of Iran[6,8], our results suggested higher percentage of oral cancer among men. In the present study, the mean age of patients with oral cancer was 62 years, which is similar to that in previous Iranian studies (ranged from 53 to 60 years). [6] Like previous findings in Tehran[6] and Guilan[5], the tongue (25.5%) was the most common site of the involvement followed by the pharynx.

Cigarette and alcohol are the main risk factors of oral cancer.[4] In the current study, 35.5% of patients had a history of heavy tobacco use, while the overall prevalence of smoking cigarette in Iran is about 16% [9] , indicating that the number of smoking patients with oral cancer in this study is more than twice the percent average of the smoking community. Use of tobacco and smokeless tobacco, however, varied regarding the regions' as well as cultural and behavioral differences, leading to diversity in the prevalence of oral cancer. The most important risk factors of oral cancer in Iran were cigarette, tobacco and hookah.[10] In the present study, approximately two-thirds of the patients were resident in the city and half of them were illiterate. However, regarding the small sample size we are unable to conclude about the effect of residential area (city or rural) and educational level on oral cancer. In Iran, data on association of residential area and education with oral cancer are rare as well. In future, a study with larger sample size is necessary to assess the relationship between place of residence and oral cancer in Babol or North of Iran. The limitations of the current study were small sample size and low response rate. Consequently, one should exercise cautious consideration when interpreting the results relating to the oral cancer risk factors.

Conclusion

The incidence of oral cancers was higher among men and the most type of malignancy was SCC. The most common site of the involvement was tongue followed by pharynx. It seems that oral cancer prevention training is necessary for elderly adults in North of Iran, especially in Babol.

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Conflict of interest: There was no conflict of interest.

Authors' Contributions

The study was designed by Mohammad Mehdi Naghibi Sistani. The study data were collected by Azade Mahmuodi Kelarijani. Data analysis and interpretation were performed by Mohammad Mehdi Naghibi Sistani .Study supervision was conducted by Mohammad Mehdi Naghibi Sistani and Shima Nafarzade.

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